

WHAT IS CLAIMED IS:

1. A laser beam containment system, comprising:
a plurality of optics that direct a laser beam produced by a laser beam source along a path to a point of application of said laser beam,
one or more hollow tubes that are positioned in an arrangement wherein said laser beam passes through said hollow tubes,
at least one of said hollow tubes being adjustably positioned relative to at least one of said optics to allow for access to said at least one optic for at least one of maintenance and adjustment of said optic.
2. The laser beam containment system of claim 1, wherein said at least one hollow tube includes a first portion that is pivotally attached to a housing for one of said optics, and a second portion adapted to be detachably connected to a housing for another of said optics.
3. The laser beam containment system of claim 1, wherein said one or more adjustably positioned hollow tubes are adapted to be releasably locked in position relative to said optics and said laser beam path to prevents access to said optics and laser beam path.
4. The laser beam containment system of claim 1, wherein said at least one hollow tube comprises:
a first portion and a second portion,
said second portion telescoping relative to said first portion
5. The laser beam containment system of claim 4, further including a locking device that prevents movement of said first portion relative to said second portion.

6. The laser beam containment system of claim 1, wherein said at least one hollow tube comprises a first portion and a second portion adjustably positioned relative to said first portion, said first portion comprising a bar with a passage therethrough for said laser beam, and a first end of said second portion fitting over a first end of said first portion.

7. The laser beam containment system of claim 6, further including a locking device that prevents movement of said first portion relative to said second portion.

8. The laser beam containment system of claim 6 wherein a second end of said first portion is pivotally mounted to a housing for one of said optics, and an end of said second portion opposite from said first end of said second portion is detachably connected to a housing for another one of said optics.

9. The laser beam containment system of claim 1, wherein said at least one hollow tube comprises a portion pivotally mounted to a housing for said at least one optic, said portion comprising a longitudinal passageway for said laser beam, and a transverse passageway adapted to position an alignment device in the path of said laser beam.

10. The laser beam containment system of claim 1, wherein said at least one hollow tube comprises at least a first portion and a second portion adjustably positioned relative to said first portion, said first portion also being adjustably positioned relative to a first one of said optics, and said second portion being adjustably positioned relative to a second one of said optics, and a locking device adapted to prevent movement of said first portion relative to said second

portion, wherein movement of said first portion relative to said first optic and movement of said second portion relative to said second optic is also prevented.

11. The laser beam containment system of claim 10, wherein said first portion comprises a bar with a passage therethrough for said laser beam, and a first end of said second portion fits telescopically over a first end of said first portion, a second end of said first portion being pivotally mounted to a housing for said first optic, and an end of said second portion opposite from said first end being detachably connected to a housing for said second optic.

12. The laser beam containment system of claim 11, wherein said bar further includes a transverse passageway adapted to position an alignment device in the path of said laser beam.

13. The laser beam containment system of claim 12, wherein said first portion further includes a first sleeve adapted to be moved from a position covering said transverse passageway to a position wherein said transverse passageway is accessible.

14. The laser beam containment system of claim 13, wherein said locking device comprises a second sleeve positionable over said first portion to prevent movement of said first sleeve from said position covering said transverse passageway.

15. A laser beam containment system, comprising:
a mirror that deflects a laser beam from a first path to a second path,
a hollow tube surrounding the first path,

said hollow tube being adjustably positioned relative to said mirror to allow for access to said mirror for at least one of maintenance and adjustment of said mirror.

16. A method of aligning laser beam optics relative to each other wherein a laser beam traveling between said optics passes through a protective sleeve that prevents unintentional or unauthorized contact with the laser beam and with the laser beam optics, said protective sleeve having a longitudinal passageway therethrough for passage of the laser beam and a transverse passageway therethrough sized to receive and position a beam alignment device in the path of said laser beam, said protective sleeve having a first portion and a second portion that is adjustably positioned relative to said first portion, and a covering member being slidably mounted on said first portion to selectively cover and uncover said transverse passageway, the method comprising:

releasing a locking member that prevents movement of said covering member and prevents movement of said second portion relative to said first portion,

sliding said cover member along said first portion to uncover said transverse passageway,

placing a target block within said transverse passageway in the path of said laser beam,

determining the position of said laser beam by burning a beam imprint on a member inserted into said target block, and adjusting said laser beam optics based on said determined laser beam position.

17. The method of claim 16, further including:

sliding said second portion telescopically over said first portion to release engagement of said second portion with a housing of one of said optics, and

pivoting said first portion relative to a housing of another one of said optics to move said first and second portions of said protective sleeve out of the path of said laser beam.

18. A method of perforating cigarette paper using a laser, comprising:

deflecting a laser beam from a first path to a second path before focusing the laser beam onto the cigarette paper to form a hole in the cigarette paper, wherein at least one of the first and second paths is surrounded by a hollow tube;

selectively adjusting said at least one of said first and second paths of said laser beam by sliding a first portion of said hollow tube relative to a second portion of said hollow tube to gain access to one or more optics positioned along said at least one of said first and second paths, and adjusting said one or more optics as desired.

19. The method according to claim 18, further including releasing a locking member that prevents movement of said second portion relative to said first portion,

sliding said first and second portions relative to each other to uncover a transverse passageway through said hollow tube,

placing a target block within said transverse passageway in the path of said laser beam,

determining the position of said laser beam by burning a beam imprint on a member inserted into said target block, and adjusting said one or more optics based on said determined laser beam position.

20. A method of perforating cigarette paper using a laser,
comprising:

deflecting a laser beam from a first path to a second path using a mirror
before focusing the laser beam onto the cigarette paper to form a hole in the
cigarette paper, wherein at least one of the first and second paths is surrounded by
a hollow tube;

selectively accessing said mirror for at least one of maintenance or
adjustment of said mirror by selectively pivoting said hollow tube about a hinged
connection of said hollow tube to a housing for said mirror.